

Natural Construct Version 4.4.1

Release Notes

Manual Order Number: CST441-008ALL

This document applies to Natural Construct Version 4.4.1 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

Readers' comments are welcomed. Comments may be addressed to the Documentation Department at the address below.

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PREFACE

These release notes describe the changes to Natural Construct provided in version 4.4.1.

For information about installing Natural Construct, see the installation manual for your platform.

For information about using Natural Construct, see:

- *Natural Construct Generation User's Manual*
This manual is intended for developers who create applications using the supplied models.
- *Natural Construct Help Text User's Manual*
This manual is intended for developers who create and maintain help text for Natural Construct-generated applications, as well as for developers who create and maintain help text for user-written models.
- *Natural Construct Administration and Modeling User's Manual*
This manual is intended for administrators who maintain the Natural Construct generation environment, as well as for developers who create new models.
- *Natural Construct Getting Started Guide*
This guide provides a quick overview of Natural Construct and its many features and capabilities. It is intended for programmers who are new to Natural Construct.

For information about these documents, contact the nearest Software AG office or visit the Software AG website at www.softwareag.com. You can also use the website to email questions to Customer Support.

RELEASE NOTE INFORMATION

This document provides information not contained in previous Natural Construct documentation. It describes the support requirements and changes in this release of Natural Construct.

The following topics are covered:

- **Product Compatibility**, page 8
- **New Features**, page 8
- **Other Changes**, page 11
- **Known Problems**, page 13
- **Support for Previous Natural Construct Versions**, page 14

Product Compatibility

Natural Construct V4.4.1 is compatible with:

- Natural V3.1
- Predict V4.1 and V4.2
- Adabas V6.2 or higher
- Construct Spectrum V4.3

New Features

This section outlines new features provided in this release of Natural Construct.

Platform Independence

Natural Construct V4.4.1 has been re-engineered. It is now compatible with all currently supported Natural Construct platforms. This feature allows you to migrate your development or production environments across all supported platforms.

Reading Files in Descending Sequence

Natural Construct V4.4.1 uses Adabas V6.2 or higher, which supports the READ descending option. Several Natural Construct models were changed to support this feature. These models are described in the following sections.

Note: To include the READ descending feature, Natural must be working with Adabas V6.2 or higher. If you are using a Natural version prior to V3.1.5, use the NTDB macro to override the default database and/or files to support the READ descending functionality. For information, see the applicable Natural and Adabas documentation.

Maintenance Models

The Maint, Object-Maint-Subp, and Object-Maint-Dialog models, which generate maintenance modules, now support the READ descending feature. This feature provides a new action for maintenance panels — the Former action (action code “F” on the dialogs or maps). Users can display the previous (or former) record in a file, similar to the way they display the next record (using the Next action), but in a reverse direction.

Browse Models

The Browse series of models (Browse, Browse-Helpr, Browse-Subp, Browse-Select, Browse-Select-Helpr, and Browse-Select-Subp) now support the READ descending feature. These models generate browse modules that display data in ascending, descending, or user-defined sequence. The user-defined sequence allows users to change the sequence as desired on the browse panel.

By default, the generated browse modules display data in ascending order. To change this functionality, select and define the START-OF-PROGRAM user exit. For information, see **START-OF-PROGRAM**, page 547, in the *Natural Construct Generation User's Manual*.

New Statement (.G) Model

A new statement model is now available: At-Break. The At-Break model generates a Natural AT-BREAK statement, which causes a statement or statements to be executed whenever a control field value changes. This statement is used in conjunction with automatic break processing and is available with the FIND, READ, HISTOGRAM, SORT, and READ WORK FILE statements. For more information, see **At-Break Statement Model** in the Statement Models chapter of the *Natural Construct Generation User's Manual*.

Relational Database Changes

Various changes have been made to ensure code generated by Natural Construct is more compatible with relational databases like DB/2.

Reading Files by Non-Unique Keys

The Browse model was modified to perform better when positioning and repositioning against non-unique keys in Adabas files. The ISN sequence is now used, which reduces the risk of rejecting rows that have already been displayed and/or fetched. This can provide a significant increase in performance when reading files by non-unique keys.

Enhanced Menu Model

In previous versions of Natural Construct, the Menu model stored the descriptions of the menu functions in an array. Now it also stores the Natural program names that are called for each function in an array called #PROGRAM-LIST. This allows programmers to reference the programs in user exit code. If the program name changes in the specifications, the user exit code does not have to.

New Getting Started Guide

Included with this release is a new document: the *Natural Construct Getting Started Guide*. This guide will help various types of users get the most from Natural Construct. The easy-to-follow guide walks new users through some rudimentary procedures so they can get working quickly and effectively with Natural Construct. It also provides helpful advice for new and experienced Natural programmers on how they can use Natural Construct as a development aid. The guide is not intended to replace existing documentation, but rather to supplement other guides.

Other Changes

This section provides an overview of other changes in Natural Construct V4.4.1.

License Key System

The Natural Construct license key system was removed in this release. It may be replaced with a standard Software AG license key system in a future release.

NCSTBGEN Utility and the Object-Maint-PDA and Object-Maint-PDA-R Models

For performance reasons, the NCSTBGEN batch generation utility no longer regenerates the Object-Maint-PDA and Object-Maint-PDA-R models (which generate the object PDA and restricted object PDA for a maintenance object). The Object-Maint-Subp model regenerates these modules.

Note: Future versions of Natural Construct will not include the Object-Maint-PDA and Object-Maint-PDA-R models.

CSGGDA Global Data Area

Natural Construct no longer uses #PLATFORM in the CSGGDA code. It now uses the *MACHINE-CLASS system variable. #PLATFORM is no longer populated in this GDA.

Updated Online Help

The online help for Natural Construct was updated to reflect the current functionality.

Natural Parameters

When running Natural Construct, use the following Natural parameters:

Parameter	Recommended Size
DATSIZE	180 or higher
ESIZE	200 or higher
SIZE	70 or higher

DB2 Database

The following models were changed for DB2 databases:

Model	Change
All Browse	WITH UR has been added to the DB2 SELECT statement.
Batch	Counters used for DB2 tables have been increased from P5s to P7s.

Known Problems

This section contains troubleshooting information for problems you may encounter when installing or using this version of Natural Construct.

Using the READ Descending Feature in the Demo System

The demo system supplied with Natural Construct V4.4.1 includes the READ descending feature. If this feature does not work, it is because the demo system uses data files stored in a logical field (LFILE) and the LFILE does not recognize this functionality.

If you intend to regenerate or use the demo system and do not have Natural V3.1.5 installed, you must override a parameter to use Adabas V6.2 or V7. You cannot do this specifically for LFILES, so you must include a wildcard character in the parameter to indicate that all databases are used. For example:

```
NTDB ADAV7 , *
```

or:

```
NTDB ADAV62 , *
```

To use the READ descending feature in the demo system, use the NTDB macro to override the default database and/or files. For information, see the applicable Natural and Adabas documentation.

Using Natural Construct with Construct Spectrum

After installing the CST nnn .INPX dataset, you must reload the CST nnn .ERRN dataset to get the most current version of the error messages. For more information, see **Step 4: Load Updated Modules and New Error Messages**, page 29.

Using the Map Model

If the Map model cannot find the SYSPROF profile, try looking in the FNAT file. If the profile is in the FNAT file, use the Natural SYSMAIN utility to move it to the FUSER file.

Support for Previous Natural Construct Versions

Software AG provides support for the following Natural Construct releases and SMS:

Version	Release Date	End of Support Date
4.3.1	January 2001	December 2002

Support for a version level will be provided through the month specified in the End of Support Date column.